

ABSTRACT OF THE DISCLOSURE

A variable reluctance resolver has a rotor which includes a noncircular core and which is rotatably supported inside a stator with a gap therebetween. The shape of the rotor is such that the gap permeance, which is based on the gap, varies according to a sine function of the rotational angle. Each of the salient poles of the rotor has an outer periphery comprising an arc of radius r centered on a point which is offset from the center of the rotor by a prescribed offset distance. The outer periphery of each salient pole does not extend to the inner periphery of the stator.